

2014 Transportation Technology Deployment Report:

State of West Virginia Clean Cities

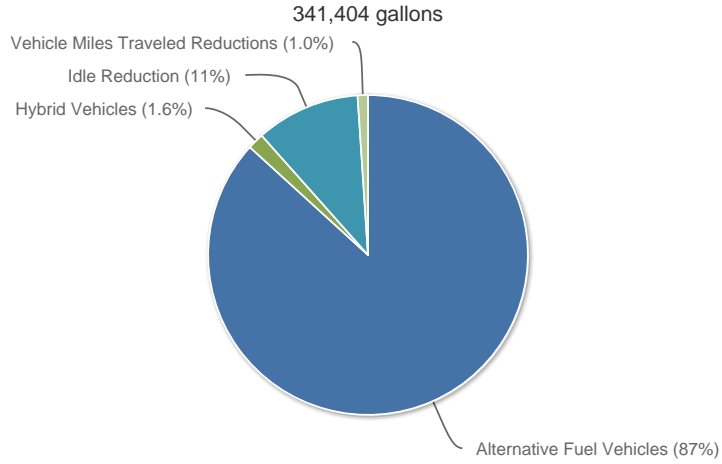
March 2015

The U.S. Department of Energy's (DOE) Clean Cities program advances the nation's economic, environmental, and energy security by supporting local actions to reduce petroleum use in transportation. A national network of nearly 100 Clean Cities coalitions brings together stakeholders in the public and private sectors to deploy alternative and renewable fuels, idle-reduction measures, fuel economy improvements, and new transportation technologies, as they emerge.

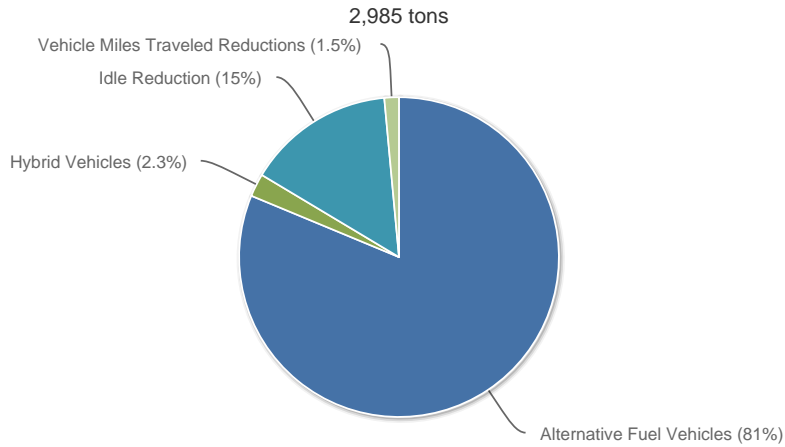
Every year, each Clean Cities coalition submits to DOE an annual report of its activities and accomplishments for the previous calendar year. Coalition coordinators, who lead the local coalitions, provide information and data via an online database managed by the National Renewable Energy Laboratory (NREL). The data characterize membership, funding, projects, and activities of the coalitions. The coordinators also submit data on the sales of alternative fuels, deployment of alternative fuel vehicles and hybrid electric vehicles, idle-reduction initiatives, fuel economy activities, and programs to reduce vehicle miles traveled. NREL and DOE analyze the data and translate them into petroleum-use and greenhouse gas reduction impacts for individual coalitions and the program as a whole. This report summarizes those impacts for State of West Virginia Clean Cities.

To view aggregated data for all local coalitions that participate in the Clean Cities program, visit www.eere.energy.gov/cleancities/accomplishments.html.

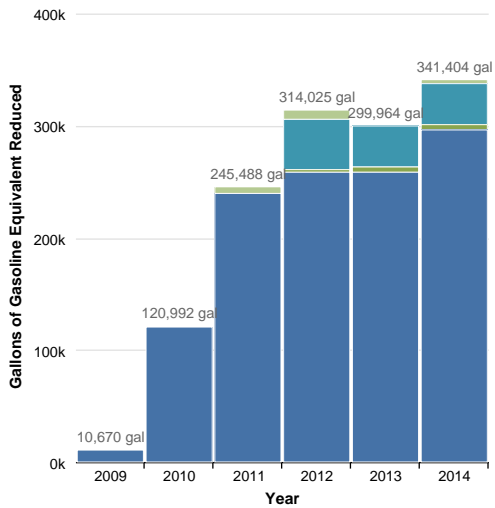
2014 Gallons of Gasoline Equivalent Reduced



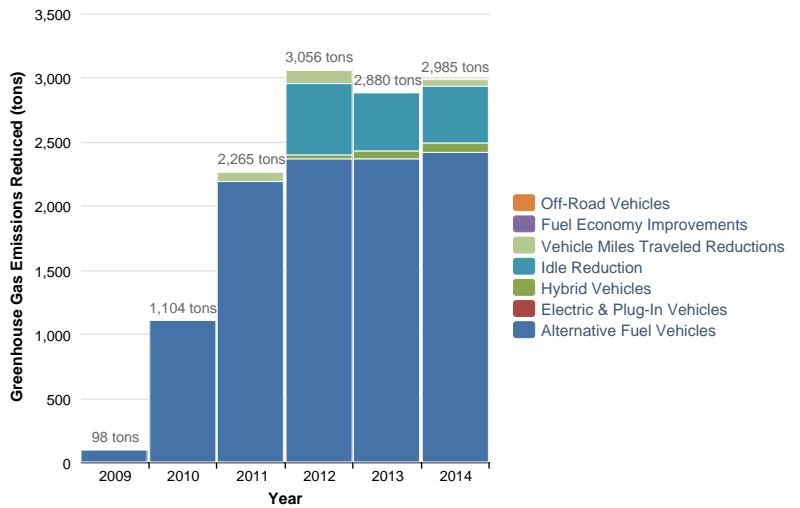
2014 Greenhouse Gas Emissions Reduced



Historical Gallons of Gasoline Equivalent Reduced

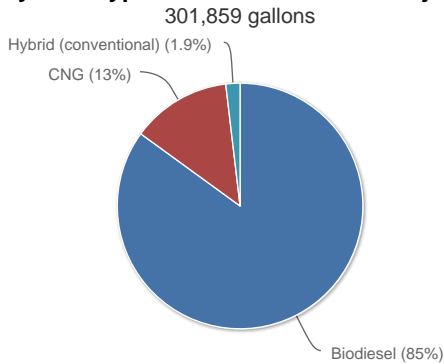


Historical Greenhouse Gas Emissions Reduced

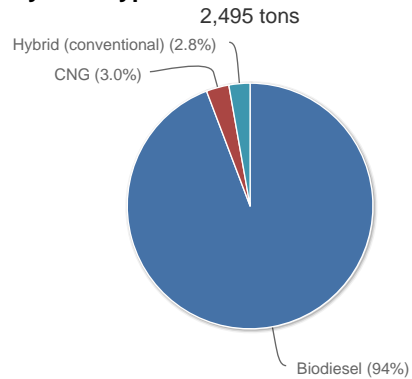


- Off-Road Vehicles
- Fuel Economy Improvements
- Vehicle Miles Traveled Reductions
- Idle Reduction
- Hybrid Vehicles
- Electric & Plug-In Vehicles
- Alternative Fuel Vehicles

2014 Gallons of Gasoline Equivalent Reduced by Fuel Type for Alternative Fuel Projects



2014 Greenhouse Gas Emissions Reduced by Fuel Type for Alternative Fuel Projects



COALITION

State of West Virginia Clean Cities - WV

<http://www.energywv.org/CleanStateProgram>

Designated: 10/18/1994

Boundaries: Entire state of West Virginia

COORDINATORS

| | Address | Telephone | Fax |
|--------------------|---|---------------------------------------|------------|
| Kelly Bragg | 1900 Kanawha Blvd E Bldg 6, Rm 620 Charleston, WV 25305 | 800-982-3386 x2004 or 304-957-2004 | |

| | |
|--|----------|
| Number of coordinators | 1 |
| Coordinator(s) hours per week on Clean Cities | 10 hours |
| Other staff hours per week on Clean Cities | 0 hours |
| How long have you been the coordinator? | 9 years |

OPERATING INFORMATION

Host organization Government - State

Stakeholders

| | |
|---|-----|
| Number of stakeholders | 60 |
| Number of private stakeholders | 40 |
| Does the State Energy Office provide any financial support to the coalition or stakeholders? | Yes |

Explain State Energy Office's support

The W.Va. Clean State Program co-coordinator is an of the W.Va. Division of Energy, the state energy office. Program activities are directed by WVDOE's director. The coordinator's office space, computers, phones, etc. are provided by WVDOE.

How would you rate the quality of the data on your survey? Good

How do you obtain most of your data for the survey? Coalition records, Paper, e-mail, or spreadsheet questionnaire to stakeholders, Phone calls to stakeholders

Has your coalition registered with www.grants.gov?

Yes

2014 Outside Funding

| | |
|--|-----|
| Stakeholder dues collected | \$0 |
| How much funding is obtained from other sources to cover coalition operating expenses? | \$0 |
| Non-DOE or ARRA grant and matching funds spent in 2014 | \$0 |
| Total non-DOE or ARRA funding in 2014 | \$0 |

VEHICLE & FUEL INVENTORY

Alternative Fuel & Vehicles

| Fleet/Station Name | Vehicle Class | Fuel | Number of Vehicles | Fuel Used | GGE Reduced | GHG Reduced |
|--|---------------|----------------|--------------------|---------------|--------------------|-------------------|
| Antero Resources | Light-Duty | CNG | 57 | 41,752 GGE | 39,667 gal | 74.6 tons |
| Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No | | | | | | |
| WV county school bus fleets | Heavy-Duty | Biodiesel (5%) | 3,222 | 5,055,606 gal | 256,572 gal | 2,351.1 tons |
| Market: Government - Local Vehicle type: Bus: School Percentage from coalition: 100% National Clean Fleets Partnership: No <i>School buses in 44 of West Virginia's 55 counties used 5,055,606 gallons of diesel blended with 5 percent biodiesel.</i> | | | | | | |
| Total: | | | 3,279 | | 296,239 gal | 2,426 tons |

Electric, Hybrid & Plug-in Vehicles

| Fleet/Station Name | Vehicle Class | Fuel | Number of Vehicles | GGE Reduced | GHG Reduced |
|---|---------------|------|--------------------|------------------|----------------|
| C&H Taxi | Light-Duty | HEV | 2 | 5,580 gal | 68.7 tons |
| Average vehicle fuel economy: 45 MPG Miles traveled per vehicle per year: 62,776 mi Market: Taxis Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No <i>From stakeholder C&H Taxi: The Ecoride program continues. In 2014 one Prius put on 63,857 miles and the other 61,694 for a total of 125,551. At an average of 45 MPG, gallons used would be 125,551 / 45 = 2,790.02 gallons. Compared to the Crown Victoria which averages 15 MPG so the gallons used would be 125,551 / 15 = 8,370.07 gallons. Thus the gallons saved would be estimated at 8,370.07 - 2,790.02 = 5,580.05.</i> | | | | | |
| W.Va. Division of Energy | Light-Duty | HEV | 1 | 40 gal | 0.5 tons |
| Average vehicle fuel economy: 28 MPG Miles traveled per vehicle per year: 7,103 mi Market: Government - State Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No <i>At the end of 2013, the car's odometer was 77758. At the end of 2014, it was 84861.</i> | | | | | |
| Total: | | | 3 | 5,620 gal | 69 tons |

FUEL ECONOMY

Vehicle Miles Traveled Reductions

| Fleet Name | Method | Vehicle Class | GGE Reduced | GHG Reduced |
|---|------------|---------------|------------------|----------------|
| W.Va. State Employee Rideshare Program | Carpooling | Light-Duty | 3,545 gal | 43.7 tons |
| Fuel saved: 3,545 gallons Percentage from coalition: 100% National Clean Fleets Partnership: No | | | | |
| Total: | | | 3,545 gal | 44 tons |

IDLE REDUCTION

Idle Reduction

| Project Name | Number of Vehicles | Idling Reduced per Vehicle | Fuel Saved per Vehicle | GGE Reduced | GHG Reduced |
|--|--------------------|------------------------------|------------------------|-------------------|-----------------|
| WV county school bus fleets | 3,000 | 10 mins/day 180 days/year | 0 gal/hr | 36,000 gal | 446.4 tons |
| Type of project: Policies Type of vehicle: School Bus Percentage from coalition: 80% National Clean Fleets Partnership: No <i>From Policy 4336, West Virginia School Bus Transportation Policy and Procedures Manual: School bus operators are prohibited from idling the buses for more than 10 minutes unless defrosting of windows is needed; in this case idling shall be limited to thirty minutes. Estimates for this annual report are based on information from the WV Department of Environmental Protection - Division of Air Quality. Using a baseline that idling a bus for 1 hour wastes 1/2 gallon of diesel fuel, the division calculates that idling 1/2 hour less saves 45 gallons of fuel per bus annually. Conservatively, the program reduces idling by 10 minutes per day, which would be 15 gallons of fuel per bus annually. With 3,000 buses in the fleet, the fuel savings are estimated at 45,000 gallons.</i> | | | | | |
| Total: | | 3,000 | | 36,000 gal | 446 tons |

FUEL STATIONS

New Stations

| Fuel | Public Stations | Private Stations |
|------------------------------|-----------------|------------------|
| Biodiesel | - | - |
| CNG - Compressed Natural Gas | - | - |
| E85 - 85% Ethanol | - | - |
| Electric Chargers | - | - |
| Hydrogen | - | - |
| LNG - Liquefied Natural Gas | - | - |
| Propane | 1 | - |
| Total: | 1 | 0 |

OUTREACH ACTIVITIES

| Activity Name | Dates | Activity Type | Percentage from Coalition | Persons Reached |
|--|---|--------------------------|---------------------------|-----------------|
| 2014 West Virginia International Auto Show | 01/24/2014, 01/25/2014, 01/26/2014 | Conference participation | 10% | 75 |
| <p>Technology: Alternative fuel vehicles Audience: General Public</p> <p><i>WV Clean State Program participated in the 2014 W.Va. International Auto Show at the Civic Center in Charleston, WV, January 24-26, 2014. Program stakeholder West Virginia Oil and Natural Gas Association (WVONGA) procured a large exhibit area shared by WV Clean State Program, WVONGA, America's Natural Gas Alliance (ANGA), IGS Energy (a CNG infrastructure building company) and multiple CNG vehicle converters who operate within West Virginia. Nine CNG vehicles were on display at the show, up from two at last year's show. The show had various hybrid vehicles on display, as well as a plug-in Toyota Prius. Co-coordinator Casey Randolph interacted with 75 people. The program's display featured a map of the CNG stations located in West Virginia, various informational pages on different alternative fuels and the 2014 Vehicle Buyer's Guide.</i></p> | | | | |
| Grand opening of third station in W.Va. I-79 CNG corridor | 01/28/2014 | Media Event | 10% | 100 |
| <p>Technology: Alternative fuel vehicles Audience: Delivery, General Public, Government, Private Fleets, Utility</p> <p><i>On Jan. 28, 2014, West Virginia's third public-access CNG fueling station along Interstate 79 opened in Charleston. IGS Energy/CNG Services, which built the stations, is a stakeholder.</i></p> | | | | |
| Fleet contacts 2014 | 03/17/2014, 05/09/2014, 05/20/2014, 07/15/2014 | Meeting - Other | 100% | 9 |
| <p>Technology: Alternative fuel vehicles Audience: Delivery, Government, Private Fleets, Other</p> <p><i>2014 fleet contacts included a regional delivery fleet, a WV police department, the W.Va. Division of Highways, municipalities and private fleets. Most wanted to consider natural gas fuels.</i></p> | | | | |
| W.Va. Clean State Program stakeholder meeting | 04/11/2014 | Meeting - Stakeholder | 100% | 11 |
| <p>Technology: Alternative fuel vehicles Audience: Government, Private Fleets</p> <p><i>Spring stakeholders meeting at W.Va. Department of Highways District 1 to learn about how state's new CNG fleet vehicles are working out. Lively, informative discussion among attendees with vehicles on display.</i></p> | | | | |
| Natural Gas for Fleets Workshops | 05/09/2014, 05/20/2014, 07/15/2014 | Meeting - Other | 100% | 77 |
| <p>Technology: Alternative fuel vehicles Audience: Government, Private Fleets</p> | | | | |
| National Alternative Fuel Vehicle Day event | 10/23/2014 | Meeting - Other | 100% | 100 |
| <p>Technology: Alternative fuel vehicles, Hybrid electric vehicles Audience: Government, Private Fleets, Utility</p> <p><i>West Virginia University's National Alternative Fuels Training Consortium (NAFTC) and the WV Division of Energy Clean State Program joined forces to conduct a National Alternative Fuel Vehicle (AFV) Day Odyssey event as part of the Governor's Energy Summit, at Stonewall Resort. Propane and CNG vehicles were on display, including a natural gas-powered race car, as well as a solar-powered hybrid.</i></p> | | | | |
| MotorWeek in West Virginia to film I-79 CNG Corridor | 12/09/2014, 12/10/2014 | Media Event | 100% | 100,000 |
| <p>Technology: Alternative fuel vehicles Audience: General Public</p> <p><i>MotorWeek airs on 92% of PBS stations nationwide and now, thanks to the W.Va. Clean State Program, on West Virginia Public Broadcasting. Until MotorWeek came to town, the show did not air on WVPB. The W.Va. Clean State Program and its host agency, the W.Va. Division of Energy, now sponsors the show. The I-79 Corridor was featured Feb. 21, 2014.</i></p> | | | | |
| Total: | | | | 100,372 |